In re LENOSKI ET AL., Application No. 09/519,282
Amendment A

Amendment to the Claims:

The listing of clams will replace all prior versions, and listings, of claims in the
application:

Listing of Claims:

1 (currently amended): A method performed by a packet ~~switching system~~ switch, the
packet switch including a plurality of input components, a plurality of output components, one
or more interconnection networks, and a broadcast component, the method comprising:

~~a plurality of input components of the packet switching system~~ sending a plurality of
packets from the plurality of input components to a the plurality of output components ~~over a
plurality of~~ through said one or more interconnection networks;

~~the packet switching system~~ recognizing an error within the packet ~~switching system~~
switch; ~~and~~

sending a particular packet to the broadcast component through at least a portion of
said one or more interconnection networks in response to said recognizing the error, the
particular packet including an indication of the error;

~~the packet switching system~~ notifying the plurality of input components of the error,
said notifying including sending one or more packets indicating the error from the broadcast
component through at least a second portion of said one or more interconnection networks.

2-4 (canceled)

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5 (currently amended): The method of ~~claim 4~~ claim 1, wherein the packet switch
includes a second broadcast component, and the method comprises: ~~notifying the plurality of~~
~~input components includes~~ sending a second particular packet to ~~a~~ the second broadcast
component in response to said recognizing the error; and ~~of the packet switching system, and~~
~~further comprising the second broadcast component broadcasting~~ wherein said notifying the
plurality of input components of the error includes sending one or more packets indicating the
error from the second broadcast component through at least a third portion of said one or more
interconnection networks ~~a second status notification packet containing a second indication of~~
~~the error~~ to the plurality of input components.

6 (original): The method of claim 1, further comprising each of the plurality of input
components updating one or more status data structures in response to receiving a notification
of the error.

7 (original): The method of claim 6, further comprising each of the plurality of input
components determining which of a plurality of paths leading to a destination output
component over which to send a particular packet, the path determined by referencing the one
or more status data structures.

8 (original): The method of claim 6, wherein each of the plurality of input component
references its one or more status data structures in determining which of a plurality of paths
leading to a destination output component over which to send a particular packet.

9 (original): The method of claim 6, wherein the one or more data structures include
an output availability table to indicate whether a possible path through the packet switching
system from the input component to a particular destination is available.

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10 (currently amended): The method of ~~claim 6~~ claim 1, further comprising disabling at least one of the plurality of input components from sending packets to a particular destination of the packet switching system when a number of possible paths through the packet switching system leading to a particular destination falls below a predetermined threshold value <u>as identified by one or more received packets containing indications of one or more errors</u>.

11-12 (canceled)

13 (original): A packet switching system comprising:

a plurality of input components, each of the plurality of input components maintaining a fault data structure;

a plurality of output components; and

a plurality of interconnection networks, each of the plurality of interconnection networks coupled to each of the plurality of input components and to each of the plurality of the output components to provide a plurality of paths between each of the plurality of input components and the plurality of output components;

wherein the fault data structure of at least one of the plurality of input components includes an indication of which interconnection networks the at least one input component may send packets through to reach a particular output component.

14 (original): The packet switching system of claim 13, further comprising a broadcast mechanism to receive an indication of a problem within the packet switching system and to notify the plurality of input components of the problem.

15 (original): The packet switching system of claim 14, wherein the broadcast mechanism is located in one of the plurality of interconnection networks.

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16 (original): The packet switching system of claim 14, wherein the broadcast mechanism is located in each of the plurality of interconnection networks.

17 (original): The packet switching system of claim 13, wherein each of the input components references its associated fault data structure in determining which of the plurality of interconnection network through which to send a particular packet.

18 (original): The packet switching system of claim 13, wherein the fault data structure includes an output availability indication of which of the plurality of interconnection networks through which its associated input component may send packets.

19 (new): The method of claim 1, wherein the broadcast component is located in a switching element in one of said one or more interconnection networks

20 (new): The method of claim 1, wherein each of said one or more interconnection networks includes three switching stages and the broadcast component is located in a switching element of a second stage of said three switching stages in one of said one or more interconnection networks.

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21 (new): An apparatus comprising a packet switch, the packet switch including:

a plurality of input components;

a plurality of output components; and

one or more interconnection networks, each of said one or more interconnection networks coupled to each of the plurality of input components and to each of the output components, each of said one or more interconnection networks including a broadcast mechanism configured to receive control packets transported through a portion of said one or more interconnection networks, said control packets each indicating an indication of an error condition, and said broadcast mechanism configured to send a plurality of packets through at least a second portion of said one or more interconnection networks to the plurality of input components.

22 (new): The apparatus of claim 21, wherein said one or more interconnection networks includes at least two interconnection networks.

23 (new): The apparatus of claim 21, wherein the broadcast mechanism is located in a switching element in one of said one or more interconnection networks

24 (new): The apparatus of claim 21, wherein each of said one or more interconnection networks includes three switching stages and the broadcast mechanism is located in a switching element of a second stage of said three switching stages in one of said one or more interconnection networks.

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25 (new): A method performed by a packet switch, the packet switch including a
plurality of input components, a plurality of output components, and one or more
·interconnection networks, the method comprising:

sending a plurality of packets from the plurality of input components to the plurality of
output components through said one or more interconnection networks;

recognizing an error within the packet switch; and

notifying each of the plurality of input components of the error, said notifying
including sending one or more packets each indicating the error through at least a portion of
said one or more interconnection networks such that at least one of said one or more packets
each indicating the error are received by each of the plurality of input components.

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